

2011-01-11 Tuesday Morning Notes

Tuesday, January 11, 2011
7:52 AM

Stacking and Transfers

- Stacked 24.9mA/hr with a production of 19.6 pbars/Mp with 7.96 Tp on target.
- Unstacked 475E10 in 58 transfers over 19 sets.

Interesting Happenings

The flow rate through the target station dump water filter loop dropped over a period of several hours late Friday afternoon with a corresponding increase in the dump cooling water loop flow. The skid should be checked out at some naturally occurring down time.

Pasted from <<http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar11&action=view&page=9&frame=2&anchor=&hlite=&load=>>

- D:DPWM2, the filter flow on the beam dump water skid has come into alarm. The plot shown below shows the pump head (D:DPWP2-D:DPWP1), flow through the dump core (D:DPWM1) and flow through the filter bypass loop (D:DPWM2). The symptoms are consistent with an increasing pressure drop in the filter bypass loop. It is unlikely that the filter is plugging at the rate indicated by the flow meter. It is more likely that the flow turbine is dragging which would result in decreased apparent flow and increased pump head due to flow resistance across the flow turbine. Since the dump water flow continues to be about nominal and dump core temperatures are nominal for the present beam power, we should continue to run and change out the flow turbine at some naturally occurring downtime.

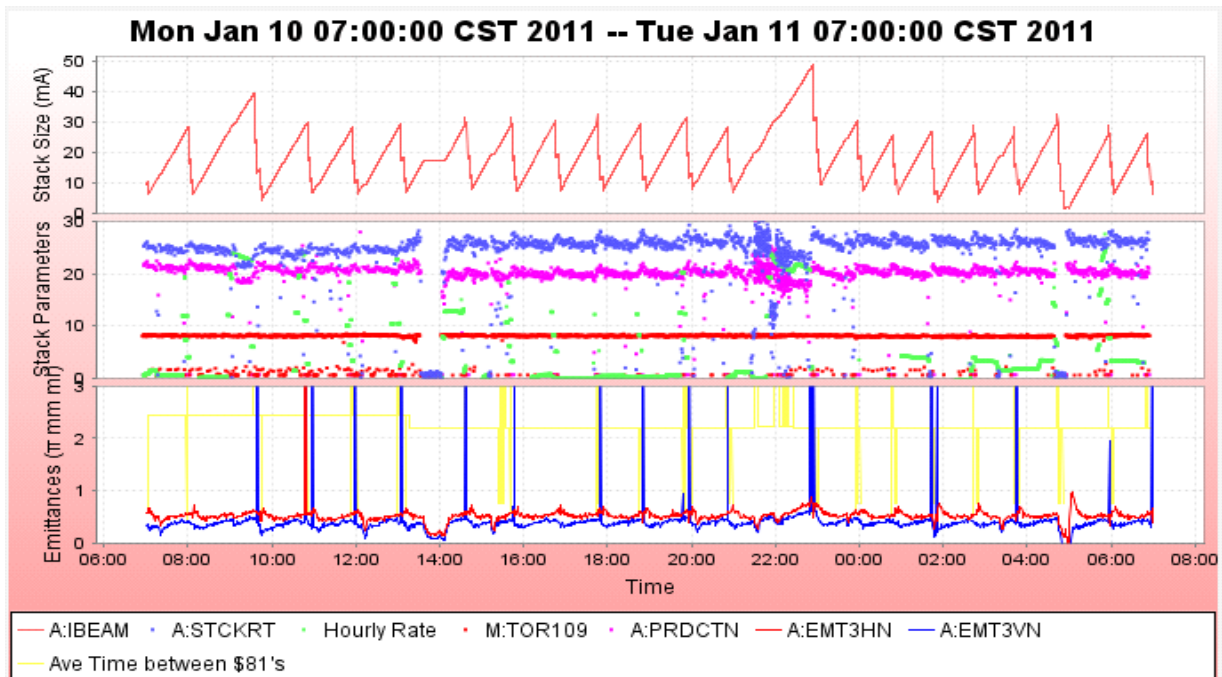
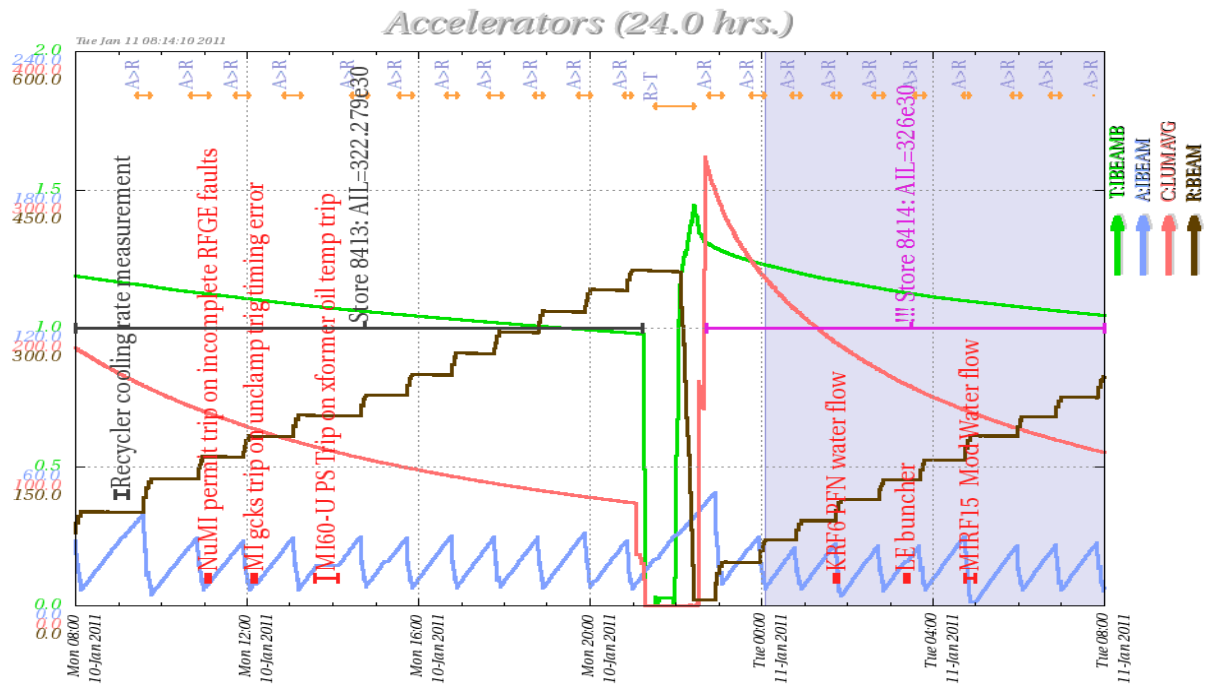
Pasted from <<http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar11&action=view&page=9&frame=2&anchor=&hlite=&load=>>

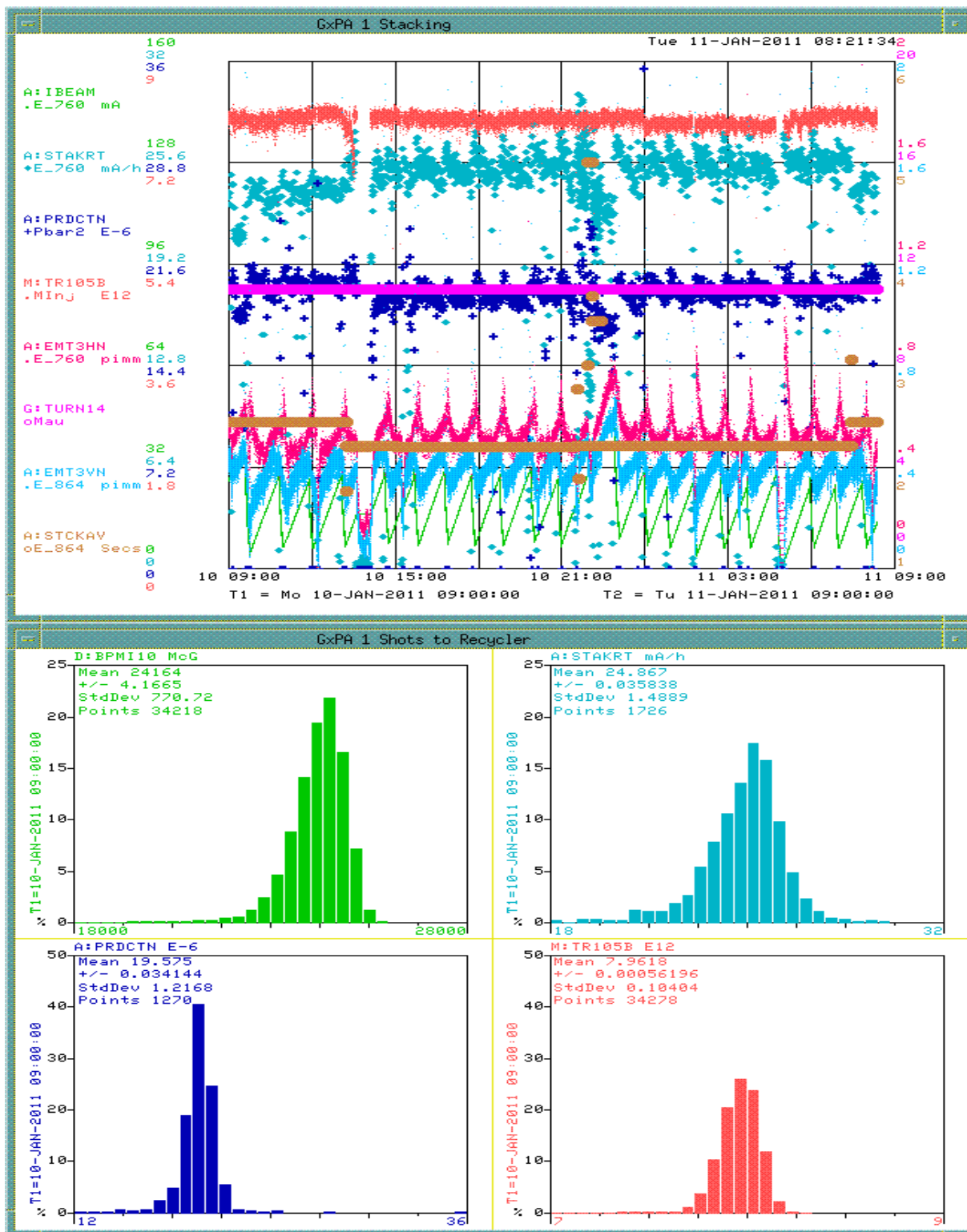
On a sad note, we got word today that the Tevatron run will not be extended beyond this fiscal year....http://www.fnal.gov/pub/today/archive_2011/today11-01-11.html

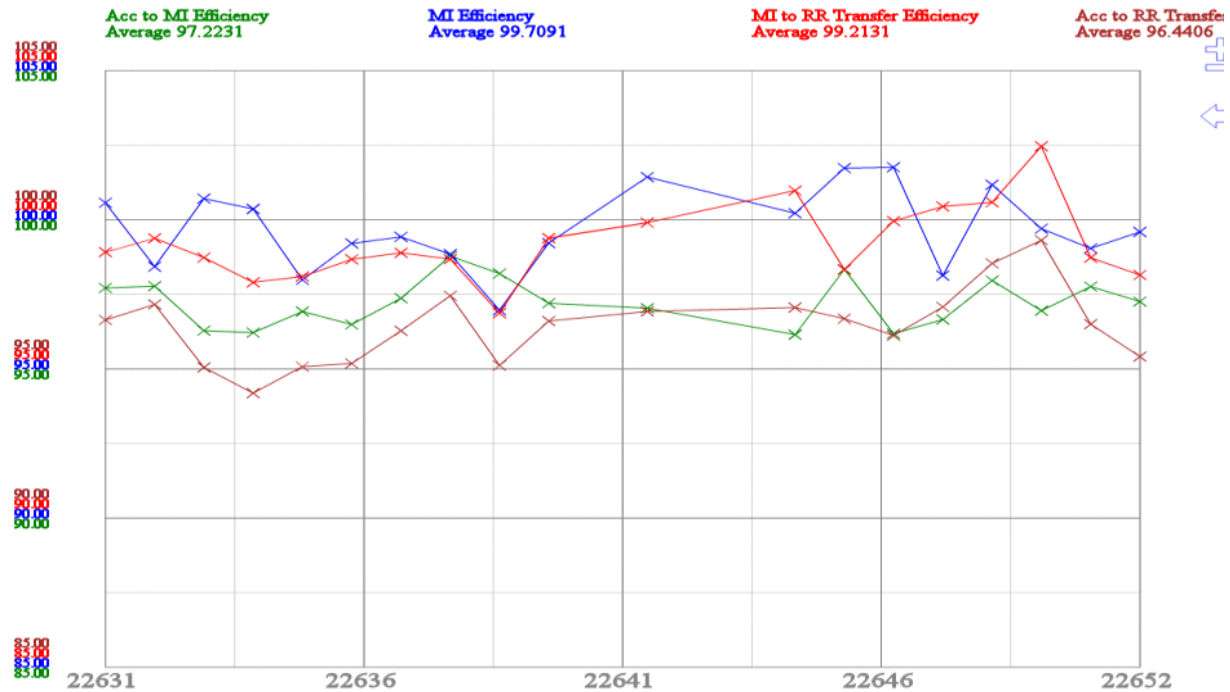
Numbers

- Stacking
 - Pbars stacked: 11.71 E10
 - Time stacking: 23.57 Hr
 - Average stacking rate: 00.50 E10/Hr
- Uptime
 - Number of pulses while in stacking mode: 36454
 - Number of pulses with beam: 34949
 - Fraction of up pulses was: 95.87%
- The uptime's effect on the stacking numbers
 - Corrected time stacking: 22.60 Hr
 - Possible average stacking rate: 00.52 E10/Hr
 - Could have stacked: 12.21 E10/Hr
- Recycler Transfers
 - Pbars sent to the Recycler: 00.00 E10
 - Number of transfers : 0
 - Number of transfer sets: 21
 - Average Number of transfer per set: 0.00
 - Time taken to shoot including reverse proton tuneup: 00.00 Hr
 - Transfer efficiency: 0%
- Other Info
 - Average POT : 7.96 E12
 - Average production: 0.42 pbars/E6 protons

Plots







Column 1 Number _0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number _20_A:1 BEAMB sampled on \$91 (A:BEA M7), E10	Column 22 Number _21_A:1 BEAMB sampled on \$94 (A:BEA M9), E10	Unstacked (mA)	Column 23 Number _22_R: BEAMS (R:BEA ME0[0]) pre xfer E10	Column 24 Number _23_R: BEAM (R:BEA ME0[1]) post xfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Trans fers	Sets	Column 5 Number _4_Acc Horizont al Emittanc e	Column 6 Number _5_Acc Vertical Emittanc e	Column 8 Number _7_Acc Longitu dinal Emittanc e	
Totals =>				475.46			458.32	96.39%	97.37%	97.00%	94.45%	58	19	5.0762	3.5003	1.9209	
Daily Average =>				475.46			458.32					58	19				
22652	Tuesday, January 11, 2011	7:50	27.46	6.42	23.51	225.49	247.76	22.48	95.63%	96.65%	96.64%	93.40%	3	1	5.081	3.507	1.937
22651	Tuesday, January 11, 2011	6:52	26.34	6.28	22.56	204.55	226.14	21.78	96.56%	98.22%	96.95%	95.22%	3	1	5.212	3.655	1.972
22650	Tuesday, January 11, 2011	5:57	26.22	6.43	22.28	183.66	205.12	21.99	98.74%	97.27%	96.73%	94.09%	3	1	5.182	3.62	1.96
22649	Tuesday, January 11, 2011	4:44	29.62	1.80	27.81	157.34	184.21	27.32	98.22%	98.02%	98.95%	96.99%	3	1	3.209	1.6	1.818
22648	Tuesday, January 11, 2011	3:41	26.07	6.45	22.18	136.39	157.75	21.61	97.44%	97.19%	95.09%	92.42%	3	1	5.296	3.718	1.95
22647	Tuesday, January 11, 2011	2:44	26.19	6.30	22.46	115.21	136.69	21.62	96.27%	96.29%	97.76%	94.13%	3	1	5.029	3.497	1.958
22646	Tuesday, January 11, 2011	1:44	26.82	3.84	24.32	92.02	115.39	23.65	97.22%	98.15%	99.00%	97.17%	3	1	4.124	2.497	1.857
22645	Tuesday, January 11, 2011	0:48	25.65	6.52	21.73	71.58	92.33	21.00	96.68%	96.47%	96.70%	93.28%	3	1	5.274	3.6	1.954
22642	Monday, January 10, 2011	20:51	28.29	6.95	23.88	341.29	363.90	23.12	96.82%	97.21%	98.09%	95.35%	3	1	5.482	3.594	1.949
22640	Monday, January 10, 2011	19:53	31.65	7.96	26.31	317.99	342.78	25.40	96.52%	97.31%	96.67%	94.07%	3	1	5.207	4.122	1.933
22639	Monday, January 10, 2011	18:47	29.65	7.28	24.92	295.65	319.25	23.85	95.69%	98.16%	95.19%	93.44%	3	1	5.371	3.762	1.946
22638	Monday, January 10, 2011	17:46	29.79	7.26	25.05	272.85	296.77	24.39	97.38%	98.35%	97.76%	96.15%	3	1	5.517	3.934	1.934
22637	Monday, January 10, 2011	16:46	30.49	7.47	25.55	249.82	273.87	24.60	96.25%	97.34%	96.86%	94.29%	3	1	5.387	3.765	1.943
22636	Monday, January 10, 2011	15:43	29.50	7.20	24.84	227.82	250.70	23.56	94.84%	96.93%	96.21%	93.26%	3	1	5.33	3.716	1.927
22635	Monday, January 10, 2011	14:38	30.00	7.77	24.78	205.63	228.63	23.47	94.72%	96.70%	95.23%	92.09%	3	1	5.266	3.729	1.867
22634	Monday, January 10, 2011	13:04	29.45	6.76	25.15	183.26	206.52	23.72	94.31%	96.65%	97.04%	93.79%	3	1	5.043	3.63	1.908
22633	Monday, January 10, 2011	11:55	28.18	6.27	24.37	161.29	183.75	23.07	94.69%	96.54%	96.81%	93.45%	3	1	5.126	3.507	1.897
22632	Monday, January 10, 2011	10:51	29.74	6.69	25.49	137.32	161.65	24.73	97.01%	97.94%	96.41%	94.42%	3	1	5.102	3.594	1.885
22631	Monday, January 10, 2011	9:35	39.57	4.40	38.29	101.45	137.80	36.97	96.54%	98.00%	98.01%	96.05%	4	1	5.21	3.459	1.903

